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FOREST INSECTS AND DISEASES IN CAPE BRETON HIGHLANDS NATIONAL PARK IN 1991

An annual examination of the national parks for forest insect and disease conditions is conducted by Forest Insect and Disease Survey personnel. Some pest problems of note found in the Cape Breton Highlands National Park in 1991 are described below:

WIND DAMAGE in 1991, as in the previous 2 years, affected a variety of hardwood species at several locations in the Park. Wind, leaf scorch, and drought all combined to cause moderate to severe browning of many deciduous leaves on north- and west-facing slopes and on ridge tops. Discoloration was most severe on sugar maple but also affected red maple, white, and yellow birch, white ash, and beech. Moderate to severe injury occurred at Jerome Mountain, Fishing Cove, east of Presquile, Cap Rouge, east of Grand Anse River, Ingonish Centre, and at a few other scattered locations.

BIRCH CASEBEARER, an introduced species, initially feeds as a miner on birch and alder leaves. The larva then leaves the mine and builds a case in which it lives and feeds. This type of feeding can cause foliage to turn brown and give the tree a scorched appearance. At seven locations throughout the Park, an average of 21% of white birch leaves were affected with the highest being 55% at Cap Rouge.

SPRUCE BUDMOTHS overwinter in the egg stage and emerge as larvae ready to feed in the developing bud. They tie the bud cap to the shoot with silk and can cause severe damage to new shoots on ornamentals and in open-grown white spruce plantations. An average of 29% of white spruce shoots were damaged at seven locations across the Park with the highest being 85% at Presquile and 53% north of Petit Étang.

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TWIG APHIDS on balsam fir and white spruce, as nymphs, excrete masses of waxy white "wool" and feed on needles of developing shoots. They cause a ruffled appearance on foliage which is of particular concern to the Christmas tree industry. South of Shag Roost, 80% of balsam fir shoots were damaged while an average of 13% of white spruce shoots were affected at five locations in the Park.

BALSAM WOOLLY ADELGID, of European origin, feeds on cell sap within the bark layers. Gouty twig damage affected 25% of balsam fir trees over several hectares at MacKenzies Point and to a lesser extent South of Shag Roost.

EASTERN SPRUCE GALL ADELGID, an introduced species, causes shoot swellings on spruce but has not been a serious forest pest problem. Damage averaged 10% on white spruce shoots at seven locations with a high of 24% at Presquile.

SPRUCE BUDWORM has not caused any conspicuous defoliation of conifers in the Park or indeed in Nova Scotia for a few years. Small numbers of larvae were found at several locations in the Park and careful monitoring will continue for its possible manifestation.

GYPSY MOTH larvae are voracious, hairy caterpillars that can grow to about 6 cm in length. They are able to consume a wide variety of hard and softwood foliage at an intense rate. Although catches of these moths are high in pheromone traps at some locations in western Nova Scotia, no significant catches have been found in the Park. Monitoring for this insect will continue in 1992 and visitors are encouraged to report suspected gypsy moths to Park personnel.

Other pests of interest were:

BIRCH SKELETONIZER damaged 20% of white birch leaves at Ingonish Centre; **WAX FILAMENT SCALE** affected an average of 46% of white birch stems throughout the Park; **BEECH BARK DISEASE** cankered an average of 67% of stems at a few sites; **PINE NEEDLE SCALE** was abundant on white spruce at Mary Ann Brook and northwest of Broad Cove; at Fishing Cove, 95% of white birch leaves were affected by the leaf spot **SEPTORIA**; large numbers of **EASTERN DWARF MISTLETOE BROOMS** weakened and killed many white spruce trees over 1-2 hectares at Presquile and south of Pillar Rock; **MITE GALLS** on red and sugar maple, white birch, and beech averaged 36% at 11 locations; **LEAFHOPPERS** on red and sugar maple and white birch were found at light levels; and **ORANGE SPRUCE NEEDLEMINER** damaged an average of 25% of white spruce needles at a few locations in the Park.

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